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TITLE: INSULATING GATE TYPE SEMICONDUCTOR DEVICE
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ABSTRACT:

PURPOSE: To display the excellent characteristics of a thin film transistor by a method wherein halogen element is mixed in at least one out of the silicon oxide film and the gate insulating film of an insulating gate type field effect transistor to form the interface level.

CONSTITUTION: Halogen element is mixed in at least one out of the silicon oxide film 12 on an insulating substrate 11 and the gate insulating film 15 of an insulating gate type field effect transistor so that almost no local level may exist in the interface between semiconductor layers 14 and the silicon oxide film 12. That is, the silicon oxide film 12 is formed by sputtering process in the atmosphere of fluoride gas and oxide gas or fluoride gas and an inert gas containing the oxide gas while a part of the semiconductor films 14 is formed as the channel formation region 17 of the title insulating gate type

semiconductor device. Through these procedures, said semiconductor device displaying excellent interfacial characteristics between the semiconductor films 14 and the gate oxide film 15 can be realized.

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